

NATIONAL SCIENCE FOUNDATION

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The National Science Foundation's Tokyo Regional Office periodically reports on developments in Japan that are related to the Foundation's mission. It also provides occasional reports on developments in other East Asian countries.

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S&T Items in the Japanese Government's Basic Policies on Economic and Fiscal Reform 2007

Prime Minister Abe released the Japanese Government's "Basic Policies on Economic and Fiscal Reform 2007" on June 19, 2007. Sub-titled "Scenario for a 'Beautiful Nation,'" its primary target is to increase Japan's annual labor productivity growth rate from the present 1.6 percent to 2.4 percent in five years.

The Japanese Government has issued Basic Policies on Economic and Fiscal Reform each year starting in 2001. Prior to 2001, the lead ministry for forming the Japanese Government budget was the Ministry of Finance (MOF). However, in January 2001, as one of the Prime Minister Koizumi's critical reform items, the Economic and Fiscal Policy

Council (EFPC) was established within the Cabinet Office with the Prime Minister as Chair, thus shifting authority for forming the Japanese government budget from MOF to EFPC.

The Basic Policies have had unique targets each year. Examples include: 2001 - drastic resolution of bad loans, decrease of the national bond below Yen 30 trillion (\$244 billion @Yen 123/\$), privatization of postal services, and creation of employment opportunities for 5.3 million people in five years; 2002 – eliminate government budget deficit by 2010; 2003 - shift of the central government budget to local governments; 2004 – drastic review of social insurance system; 2005 - expansion of ODA (Official Development Aid); 2006 – eliminate government budget deficit in 2011.

The 2007 Basic Policy statement asserts that because Japan is facing declining population for the first time in history, it is critically important to increase per capita productivity. The Japanese economic system and infrastructure that were established based on continuous increase in population and economic growth after WWII will no longer work in the new environment of decreasing population, rapid globalization, and an internationally IT'ed society. The following summarizes points from the 2007 Basic Policies that relate to science, technology and education, and that may be of concern to the National Science Foundation.

STRENGTHENING OF GROWTH RATE

- Programs to accelerate growth rate

IT reform

- . Service industry innovation strategies
 - + Advancement of production by IT
 - + International competitiveness of ICT industries
 - + World top level e-government
 - + Doubling tele-working population
 - + Advancement of information security

- Expansion of growth possibilities, including innovation

University/graduate university reform

- . Education quality
 - + More rigorous requirements for graduation
 - + More external evaluation
 - + More volunteer activities
 - + Proactive reform by the Education Rebuilding Council
 - + Expansion of scholarships for excellent students

- . Internationalization and diversification of universities
 - + International recruitment of faculty members
 - + More classes in English language
 - + National strategic policy on foreign students
 - + Flexibility in the month of entrance – possibility of September whereas presently only in April
 - + MEXT's establishment of "Globalization of Universities (tentative name)," including double degree system.
 - + Evaluation of universities' internationalization efforts in JFY2008
 - + Expansion of programs for foreign students
 - + More linkages between universities and industries
 - + More linkages between technical colleges and local areas

- . World top-level graduate education
 - + Establishment of world top-level graduate universities
 - + Support to excellent graduate students
 - + Possible grade skip from junior to masters degree programs, and flexible term for Ph.D. programs

- . Local universities
 - + Reorganization of divisions and departments of universities and collaboration with other universities
 - + Cooperation between local universities for graduate education
 - + Support for local consortia of universities

- . Further reform of national university corporations
 - + Drastic merger between national university corporations, reorganization of

- departments, and downsizing of enrollment numbers
- + Efficient management of national university corporations by administrative reform
- . Expansion of competitive funds and their efficient distribution
 - + Expansion of competitive funds for both research and education
 - + Introduction of indirect costs
 - + Improvement of the review system for competitive funds from the viewpoint of fairness, transparency, and internationalization viewpoints
 - + Attention to young researchers
- . Efforts by universities
 - + Improvement of the environment to encourage universities' efforts to invite investments from outside sources, including improvement of the tax system
- . Operational funds to national university corporations
 - + Amounts to be decided based on the efforts and results by the universities with a detailed distribution method to be established in 2007
 - + MEXT to implement appropriate distribution based on (1) education and research, and (2) efforts to reform universities, with reference to the assessment of the national university corporations
- . Acceleration of innovation
 - + Promotion of "Innovation 25" (See <http://www.nsftokyo.org/rm07-05.pdf> or http://www.kantei.go.jp/foreign/innovation/innovation_final.pdf for full report)
 - + Promotion of IPR Plan 2007
 - + Promotion of Industry-Government-University cooperation

SAFE AND SUSTAINABLE SOCIETY

- Environment-oriented nation

- . Acceleration of the efforts toward the targets in the Kyoto Protocol
- . Leadership in the world after 2013 (Kyoto Protocol is in effect through 2012)

- **Education rebuilding**

- . Advancement of academic ability
 - + 10 percent increase in the classroom time
 - + Easy-to-understand and attractive classes
 - + Improvement of teachers' quality and more time for teacher-student interactions
 - + Timely support for problems at schools
 - + Support for creative ideas at schools
- . Physical and mental balance
 - + Improvement of "moral instruction"
 - + More volunteer activities
 - + Support from parents and local areas
 - + Education rebuilding centers
 - + Education rebuilding networks
- . Financial support
 - + Focused support
 - + Improvement of teachers' salary system
 - + Educational costs in local areas

- **Security, disaster prevention, and energy policies**

- + Society secure against threats, and safe and secure towns
- + Strengthening of immigration management system
- + Countermeasures for large-scale disasters caused by water/land/sand, tsunami/flood, and heavy snow
- + Utilization/industrialization of space
- + R&D on security and disaster prevention
- + Countermeasures for infectious diseases
- + Promotion of policies on marine/ocean activities

Most of these science and technology-related items are also highlighted in the Japanese Government's Third Science and Technology Basic Plan

(<http://www.nsftokyo.org/rm06-02.pdf> and <http://www8.cao.go.jp/cstp/english/basic/index.html>), Japanese Government S&T-related budgets (<http://www.nsftokyo.org/rm07-03.pdf>), Japan's Large-scale Research Centers Programs (<http://www.nsftokyo.org/rm07-04.pdf>), and Japan's Innovation 25 Initiative (<http://www.nsftokyo.org/rm07-05.pdf> and http://www.kantei.go.jp/foreign/innovation/index_e.html). A common theme is the critical need for reform of Japan's university system, including how universities are funded, how they compete for research support, and how they can become internationally recognized institutions. The NSF Tokyo Office will watch how these various Japanese Government policies evolve and continue to report on the developments.